

at least one output terminal electrically connected to said electric windings, the transducer being adapted for providing, through the output terminal, an electric signal indicative of the mutual position between said electric windings and said magnetic core, wherein the electric windings include a second primary winding between said first primary winding and one of said input terminals, said first and second primary windings being electrically connected to each other and to said pair of secondary windings, said electric signal including a first and a second component, indicative of the mutual position between the magnetic core and said primary windings and said secondary windings, respectively.

2. The transducer according to claim 1, wherein said first primary winding and said second primary winding are mutually connected in series at a connection point, and said secondary windings are electrically connected to said connection point.

3. The transducer according to claim 2, wherein said first primary winding and said second primary winding are each adapted to provide a signal that is variable as the mutual position between said first primary winding or said second primary winding and said magnetic core varies, the first component of said electric signal being proportional to the difference between the signals provided by the first and second primary windings, respectively.

4. The transducer according to claim 3, wherein the secondary windings are mutually connected in phase opposition.

5. The transducer according to claim 4, wherein each of said secondary windings provides an induced signal that is variable as the mutual position between said electric windings and said magnetic core varies, the second component of the signal electric being proportional to the difference between said induced signals.

6. The transducer according to claim 1, wherein said first primary winding and said second primary winding have the same number of turns, and each of said secondary

windings has the same number of turns as the other.

7. The transducer according to claim 1, wherein said power supply unit includes two sinusoidal voltage generators connected in phase opposition.

8. A linear inductive transducer comprising:

electric windings including

a first primary winding, and

a pair of secondary windings,

a magnetic core for performing linear displacements relative to the electric windings,

a pair of input terminals electrically connected to said primary winding and adapted for being electrically connected to a power supply unit, and

output terminals electrically connected to said electric windings, the transducer being adapted for providing at least one of said output terminals with an electric signal indicative of the mutual position between said electric windings and said magnetic core, wherein the electric windings include a second primary winding between said first primary winding and an input terminal of said pair, the first and second primary windings being mutually connected in series at a connection point, said output terminals including three output terminals electrically connected to the ends of said pair of secondary windings, and to said connection point between the primary windings, respectively, the transducer being adapted for selectively providing said electric signal at one or a pair of said three output terminals.

9. The transducer according to claim 8, wherein the secondary windings are mutually connected in phase opposition.

10. The transducer according to claim 8, wherein two of said three output terminals are adapted for being electrically connected to one another for achieving an electric connection between the primary windings and the secondary windings, the transducer being adapted for providing said electric signal at the other of said three output terminals.

11. The transducer according to claim 10, wherein said electric signal includes a first and a second component, indicative of the mutual position between the magnetic core and the primary windings and secondary windings respectively.
12. The transducer according to claim 8, wherein two of said three output terminals are adapted for being insulated, the transducer being adapted for providing said electric signal at the other of said three output terminals.
13. The transducer according to claim 8, wherein said power supply unit includes two sinusoidal voltage generators connected in phase opposition.
14. The transducer according to claim 8, wherein the output terminal connected to the connection point is adapted for being insulated, the transducer being adapted for providing said electric signal at the two output terminals at the ends of said pair of secondary windings.
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